Form OGC - 3

MISSOURI OIL AND GAS COUNCIL

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL ☒ DEEPEN ☐ PLUG BACK ☐

NAME OF COMPANY OR OPERATOR Prairie Energy Corporation DATE December 11, 1981

8600 West 110th Street STE 202 Overland Park Kansas 66210

Address City State

DESCRIPTION OF WELL AND LEASE

Name of lease	Well number	Elevation (ground)
MacLaughlin	3-A	1055

WELL LOCATION (give footage from section lines)

1645 ft. from (N) (S) sec. line 1520 ft. from (E) (W) sec. line

WELL LOCATION Section 4 Township 46 Range 33 County Cass

Nearest distance from proposed location to property or lease line: 165 feet

Distance from proposed location to nearest drilling, completed or applied – for well on the same lease: 1500 feet

Proposed depth	Rotary or Cable tools	Approx. date work will start
700'	Rotary	December 21, 1981

Number of acres in lease: 300 acres more or less

Number of wells on lease, including this well, completed in or drilling to this reservoir: 1

Number of abandoned wells on lease: 0

If lease, purchased with one or more wells drilled, from whom purchased: Name _____ Address _____

No. of Wells: producing _____ inactive _____ abandoned _____

Status of Bond

Single Well ☐ Amt. _____ Blanket Bond ☒ Amt. 20,000

☒ ON FILE ☐ ATTACHED

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.

Proposed casing program:

amt.	size	wt./ft.	cem.
25'	7"	26.6	6 sacks
650'	4 1/2"	10.5	90 sacks

Approved casing – To be filled in by State Geologist

amt.	size	wt./ft.	cem.

I, the undersigned, state that I am the President of the Prairie Energy Corp. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature Nicholas K. Powell

RECEIVED

DEC 14 1981

MO OIL & GAS COUNCIL

Permit Number: 20236

Approval Date: 12/15/81

Approved By: Wallace B. Duncan TRS

☒ SAMPLES REQUIRED

☐ SAMPLES NOT REQUIRED

WATER SAMPLES REQUIRED @:

Note: This Permit not transferable to any other person or to any other location.

Remit two copies to: Missouri Oil and Gas Council P.O. Box 250 Rolla, Mo. 65401

One will be returned.

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

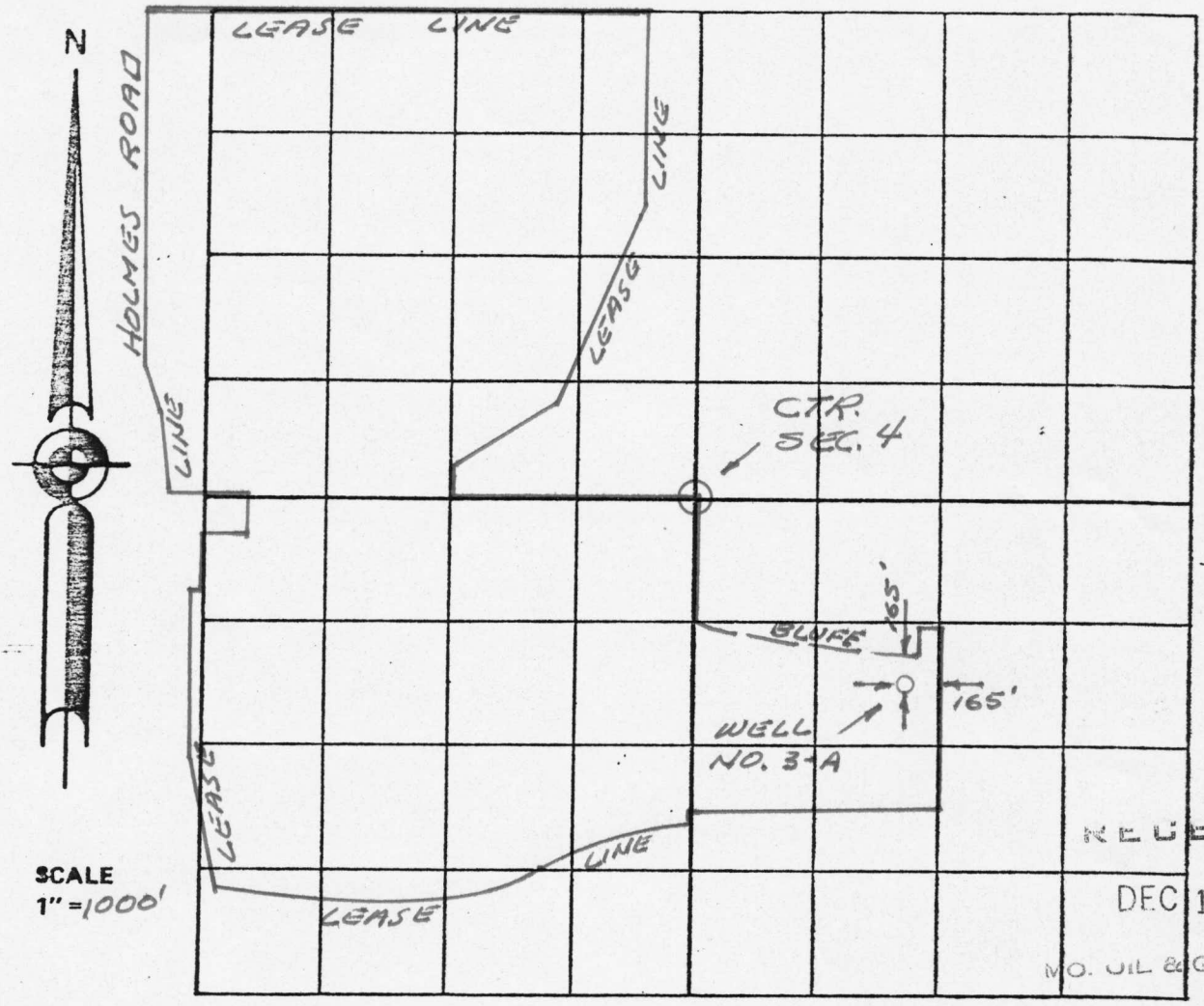
MISSOURI OIL AND GAS COUNCIL
WELL LOCATION PLAT

Form OGC—4

Owner: Prairie Energy Corp.

Lease Name: Mac Laughlin County: Cass

1645 feet from South (N) - (S) line and 1520 feet from East (E) - (W) line of Sec. 4, Twp. 46 N, Range 33.



RECEIVED
DEC 14 1981
MO. OIL & GAS COUNCIL

REMARKS:

Well No. 3-A

Elevation 1055

INSTRUCTIONS

On the above plat, show distance of the proposed well from the two nearest section lines, the nearest lease line, and from the nearest well on the same lease completed in or drilling to the same reservoir. Do not confuse survey lines with lease lines. See rule 10 CSR 50-2.030 for survey requirements.

This is to Certify that I have executed a survey to accurately locate oil and gas wells in accordance with 10 CSR 50-2.030 and that the results are correctly shown on the above plat.

MISSOURI No. 918 HOWARD L. SHERMAN REGISTERED LAND SURVEYOR

[SEAL]

Remit two copies to: Missouri Oil and Gas Council
P.O. Box 250, Rolla, Mo. 65401

One will be returned.

Howard L. Sherman — 918

Registered Land Surveyor — Number

Missouri Oil and Gas Council — Form OGC-5

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

New Well [X] Workover [ ] Deepen [ ] Plug Back [ ] Injection [ ] Same Reservoir [X] Different Reservoir [ ] Oil [X] Gas [ ] Dry [ ]

Owner: Prairie Energy Corporation	Address: 8600 West 110th Street Suite 202 Overland Park, Kansas 66210
Lease Name: MacLaughlin	Well Number: 3-A
Location: 1645' FSL, 1520' FEL	Sec., Twp., and Range or Block and Survey: Sec. 4, T46, R33
County: Cass	Permit number (OGC 3 or OGC 3I): 20236
Date spudded: 12/30/81	Date total depth reached: 1/14/82
Date completed, ready to produce or inject: 2/15/82	Elevation (DF, RKR, RT, or (G).) feet: 1055
Elevation of casing hd. flange feet:	Total depth: 640'
P B T D:	Producing or injection interval(s) for this completion: Squirrel
Rotary tools used (interval) From 0 to TD; Drilling Fluid used air	Cable tools used (interval) From ____ to ____
Was this well directionally drilled? No	Was directional survey made? N/A
Was copy of directional survey filed? N/A	Date filed: N/A
Type of electrical or other logs run (list logs filed with the State Geologist): Gamma Ray Neutron	Date filed: with report

CASING RECORD

Casing (report all strings set in well - conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb. ft.)	Depth set	Sacks cement	Amt. pulled
surface	10	7		25	5	
casing	6 1/4	2 7/8	6.5	599	110	

TUBING RECORD

Size	Depth set	Packer set at	Size
in.	ft.	ft.	in.

LINER RECORD

Top	Bottom	Sacks cement	Screen (ft.)
ft.	ft.		

PERFORATION RECORD

Number per ft	Size & type	Depth Interval
29	2 1/8" glass jets	542-556

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production or injection: 2/15/82

Producing method (indicate if flowing, gas lift, or pumping -- if pumping, show size and type of pump): pumping, 1 1/2" insert pump, 5' barrel

Date of test	Hrs. tested	Choke size	Oil produced during test	Gas produced during test	Water produced during test	Oil gravity
		1"	bbls.	MCF	bbls.	API (Corr.)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hours	Oil	Gas	Water	Gas – oil ratio
			2 bbls.	No MCF	20 bbls.	

Disposition of gas (state whether vented, used for fuel or sold):

Method of disposal of mud pit contents: Buried

CERTIFICATE: I, the undersigned, state that I am the Land Manager of the Prairie Energy Corporation (company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature: Stephen R. Hughes

Stephen R. Hughes

See Attached Drillers Log

RECEIVED
AUG 23 1982
MO. OIL & GAS COUNCIL

3/12/1982

TEST BORING LOG

Project Prairie Energy Corporation — Boring No. 3-A — Sheet 1 of 5

McLaughlin Lease — Surface Elevation _____ — Offset _____

Address Sec 4 T 46N R 33W 1520 FEL 1645' FSL — Date Started 12/30/81 — Completed 01/14/82

City & State Grandview, Missouri — Driller V. R. Campbell — Rig G.D. 1500

Abbreviations: A.O. – Auger Only; H.A. – Hollow Auger; W.B. – Wash Bore; R.B. – Rock Bit; S.S. – Split Spoon; S.T. – Shelby Tube; C.W. – Core Water; C.A. – Core Air; F.B. – Finger Bit

DEPTH FROM	DEPTH TO	METHOD	PENETRATION RECORD: POCKET PENETROMETER	PENETRATION RECORD: NO. OF BLOWS	CORE RECOVERY	SAMPLE DESCRIPTION: COLOR–MATERIAL–MOISTURE–CLAY CONSISTENCY SAND DENSITY
0.0'	1.0'	RB				Topsoil
1.0'	6.0'	RB				Brown clay
6.0'	13.0'	RB				Gray limestone
13.0'	42.0'	RB				Gray shale
42.0'	53.0'	RB				Gray limestone
53.0'	63.0'	RB				Gray shale
63.0'	66.0'	RB				Red shale
66.0'	74.0'	RB				Gray shale
74.0'	79.0'	RB				Red shale
79.0'	80.0'	RB				Gray shale
80.0'	84.0'	RB				Gray limestone
84.0'	85.0'	RB				Dark gray shale
85.0'	126.0'	RB				Gray shale
126.0'	128.0'	RB				Gray limestone
128.0'	139.0'	RB				Gray shale
139.0'	141.0'	RB				Gray limestone

REMARKS: (Casing, Water Loss, Etc.)

Water Level	Time	Date	
			(Completion)

Layne-Western Company, Inc.

LW-59A

TEST BORING LOG

Project Prairie Energy Corporation — Boring No. 3-A — Sheet 2 of 5

Surface Elevation _____ Offset _____

Address _____ Date Started _____ Completed _____

City & State _____ Driller _____ Rig _____

Abbreviations: A.O. – Auger Only; H.A. – Hollow Auger; W.B. – Wash Bore; R.B. – Rock Bit; S.S. – Split Spoon; S.T. – Shelby Tube; C.W. – Core Water; C.A. – Core Air; F.B. – Finger Bit

DEPTH FROM	DEPTH TO	METHOD	PENETRATION RECORD: POCKET PENETROMETER	PENETRATION RECORD: NO. OF BLOWS	CORE RECOVERY	SAMPLE DESCRIPTION: COLOR–MATERIAL–MOISTURE–CLAY CONSISTENCY SAND DENSITY
141.0'	143.0'	RB				Gray shale
143.0'	152.0'	RB				Dark gray limestone w/shale seams
152.0'	155.0'	RB				Gray shale
155.0'	165.0'	RB				Light gray limestone
165.0'	167.0'	RB				Dark gray shale
167,0'	168.0'	RB				Black shale
168.0'	172.0'	RB				Gray shale
172.0'	191.0'	RB				Gray limestone
191.0'	192.0'	RB				Black shale
192.0'	195.0'	RB				Gray shale
195.0'	197.0'	RB				Black shale
197.0'	198.0'	RB				Gray shale
198.0'	207.0'	RB				Gray limestone
207.0'	210.0'	RB				Gray shale
210.0'	212.0'	RB				Gray sandy shale
212.0'	216.0'	RB				Gray sandstone

REMARKS: (Casing, Water Loss, Etc.) Water Level Time Date

_____ _____ _____ _____ (Completion)

_____ _____ _____ _____

Layne-Western Company, Inc.

LW-59A

TEST BORING LOG

Project Prairie Energy Corporation — Boring No. 3-A — Sheet 3 of 5

Surface Elevation _____ Offset _____

Address _____ Date Started _____ Completed _____

City & State _____ Driller _____ Rig _____

Abbreviations: A.O. – Auger Only; H.A. – Hollow Auger; W.B. – Wash Bore; R.B. – Rock Bit; S.S. – Split Spoon; S.T. – Shelby Tube; C.W. – Core Water; C.A. – Core Air; F.B. – Finger Bit

DEPTH FROM	DEPTH TO	METHOD	PENETRATION RECORD: POCKET PENETROMETER	PENETRATION RECORD: NO. OF BLOWS	CORE RECOVERY	SAMPLE DESCRIPTION: COLOR–MATERIAL–MOISTURE–CLAY CONSISTENCY SAND DENSITY
216.0'	230.0'	RB				Gray shale
230.0'	235.0'	RB				Gray sandy shale
235.0'	250.0'	RB				Gray shale
250.0'	255.0'	RB				Gray sandstone
255.0'	310.0'	RB				Gray shale
310.0'	320.0'	RB				Gray sandstone
320.0'	340.0'	RB				Gray shale
340.0'	346.0'	RB				Gray sandstone
346.0'	369.0'	RB				Gray shale
369.0'	372.0'	RB				Gray sandstone
372.0'	378.0'	RB				Gray shale
378.0'	381.0'	RB				Red shale
381.0'	392.0'	RB				Gray shale
392.0'	396.0'	Rb				Light brown limestone
396.0'	397.0'	RB				Black shale
397.0'	398.0'	RB				Brown limestone

REMARKS: (Casing, Water Loss, Etc.)

Water Level	Time	Date	
			(Completion)

Layne-Western Company, Inc.

LW-59A

TEST BORING LOG

Project Prairie Energy Corporation — Boring No. 3-A — Sheet 4 of 5

Surface Elevation _____ Offset _____

Address _____ Date Started _____ Completed _____

City & State _____ Driller _____ Rig _____

Abbreviations: A.O. – Auger Only; H.A. – Hollow Auger; W.B. – Wash Bore; R.B. – Rock Bit; S.S. – Split Spoon; S.T. – Shelby Tube; C.W. – Core Water; C.A. – Core Air; F.B. – Finger Bit

DEPTH FROM	DEPTH TO	METHOD	PENETRATION RECORD: POCKET PENETRO-METER	PENETRATION RECORD: NO. OF BLOWS	CORE RECOVERY	SAMPLE DESCRIPTION: COLOR–MATERIAL–MOISTURE–CLAY CONSISTENCY SAND DENSITY
398.0'	400.0'	RB				Gray shale
400.0'	402.0'	RB				Black shale
402.0'	406.0'	RB				Gray shale
406.0'	416.0'	RB				Brown limestone
416.0'	430.0'	RB				Gray shale
430.0'	431.0'	RB				Black shale
431.0'	438.0'	RB				Dark gray shale
438.0'	441.0'	RB				Dark brown limestone
441.0'	475.0'	RB				Dark gray shale
475.0'	495.0'	RB				Gray sandy shale
495.0'	496.0'	RB				Black shale
496.0'	535.5'	RB				Gray sandy shale
535.5'	545.5'	CW1			10.0'	Gray sandstone
545.5'	550.5'	CW2			5.0'	Same
550.5'	560.5'	CW3			10.0'	Same
560.5'	567.1'	CW4				Gray sandstone

REMARKS: (Casing, Water Loss, Etc.)

Water Level	Time	Date	
			(Completion)

Layne-Western Company, Inc.

LW-59A

TEST BORING LOG

Project Prairie Energy Corporation — Boring No. 3-A — Sheet 5 of 5

Surface Elevation _____ Offset _____

Address _____ Date Started _____ Completed _____

City & State _____ Driller _____ Rig _____

Abbreviations: A.O. – Auger Only; H.A. – Hollow Auger; W.B. – Wash Bore; R.B. – Rock Bit; S.S. – Split Spoon; S.T. – Shelby Tube; C.W. – Core Water; C.A. – Core Air; F.B. – Finger Bit

DEPTH FROM	DEPTH TO	METHOD	PENETRATION RECORD: POCKET PENETROMETER	PENETRATION RECORD: NO. OF BLOWS	CORE RECOVERY	SAMPLE DESCRIPTION: COLOR–MATERIAL–MOISTURE–CLAY CONSISTENCY SAND DENSITY
567.1'	570.5'	CW4			10.0'	Gray limestone
570.5'	580.5'	CW5			10.0'	Same
580.5'	595.0'	RB				Gray limestone w/shale layers
595.0'	596.0'	RB				Coal
596.0'	620.0'	RB				Gray shale
620.0'	622.0'	RB				Gray limestone
622.0'	635.0'	RB				Gray shale
635.0'	640.0'	RB				Black shale
640.0'	Total Depth					

REMARKS: (Casing, Water Loss, Etc.) Water Level Time Date

_____ _____ _____ _____ (Completion)

_____ _____ _____ _____

Layne-Western Company, Inc.

LW-59A

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES, ROLLA, MISSOURI

COUNTY Cass

COMPANY OR OWNER Prairie Energy Corp.

FARM MacLaughlin WELL NO. 3-A

LOCATION 1645'FSL, 1520'FEL SEC 4 T 46 R 33

CONTRACTOR/DRILLER V.R.Campbell

COMMENCED 12-30-81 COMPLETED 01-14-82

PRODUCTION Oil 2 bbls./day

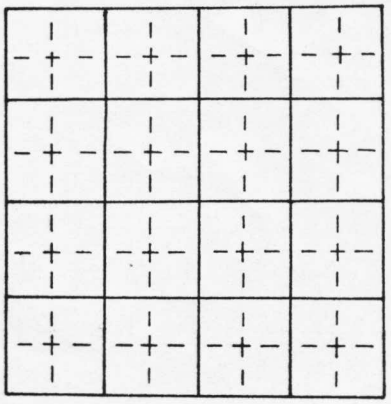
CASING RECORD

WATER RECORD

SOURCE OF LOG

REMARKS OGC # 20236

MGS LOG NO. Driller's



ELEV. 1055'

TOTAL DEPTH 640'

SWL

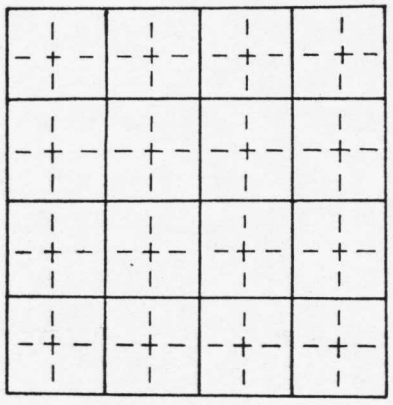
NO. SAMPLES SAMPLES RECEIVED

FORMATION	FROM (ft)	TO (ft)
Topsoil	0	1
Brown clay	1	6
Gray limestone	6	13
Gray shale	13.0	42
Gray limestone	42	53
Gray shale	53	63
Red shale	63	66
Gray shale	66	74
Red shale	74	79
Gray shale	79	80
Gray limestone	80	84
Dark gray shale	84	85
Gray shale	85	126
Gray limestone	126	128
Gray shale	128	139
Gray limestone	139	141
Gray shale	141	143
Dark gray limestone w/shale seams.	143	152
Gray shale	152	155
Light gray limestone	155	165
Dark gray shale	165	167
Black shale	167	168
Gray shale	168	172
Gray limestone	172	191
Black shale	191	192
Gray shale	192	195
Black shale	195	197
Gray shale	197	198
Gray limestone	198	207
Gray shale	207	210
Gray sandy shale	210	212
Gray sandstone	212	216
Gray shale	216	230
Gray sandy shale	230	235
Gray shale	235	250
Gray sandstone	250	255
Gray shale	255	310
Gray sandstone	310	320
Gray shale	320	340
Gray sandstone	340	346
gray shale	346	369
Gray sandstone	369	372
Gray shale	372	378
Red shale	378	381
Gray shale	381	392
Light brown limestone	392	396
Black shale	396	397
Brown limestone	397	398
Gray shale	398	400
Black shale	400	402
Gray shale	402	406
Brown limestone	406	416
Gray shale	416	430
Black shale	430	431
Dark gray shale	431	438
Dark brown limestone	438	441
Dark gray shale	441	475
Gray sandy shale	475	495
Black shale	495	496
Gray sandy shale	496	535.5
Gray sandstone	535.5	567.1

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES, ROLLA, MISSOURI

COUNTY Cass
COMPANY OR OWNER Prairie Energy Corp.
FARM MacLaughlin WELL NO. 3-A
LOCATION 1645'FSL, 1520'FEL SEC 4 T 46 R 33
CONTRACTOR/DRILLER V.R. Campbell
COMMENCED 12-30-81 COMPLETED 01-14-82
PRODUCTION Oil 2 bbls./day
CASING RECORD
WATER RECORD
SOURCE OF LOG
REMARKS OGC # 20236

MGS LOG NO. Driller's



ELEV. 1055'
TOTAL DEPTH 640'
SWL

NO. SAMPLES SAMPLES RECEIVED

FORMATION	FROM (ft)	TO (ft)
Gray limestone	567.1	580.5
Gray limestone w/shale layers	580.5	595.0
Coal	595.0	596.0
Gray shale	596.0	620.0
Gray limestone	620.0	622.0
Gray shale	622.0	635.0
Black shale	635.0	640.0
T.D.	640'	

FORMATION	FROM (ft)	TO (ft)